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Remarks

Claims 1, 3-10 and 12-20 were pending in the application. Claims 15 and 17 have been canceled.

Claim 16 is objected to because "a optical signal" in line 13 on page 4 should be "an optical signal."

Claims 1, 3, 6-7, 10, 12, and 20 are rejected under 35 U.S.C. §102(e) as being anticipated by United States Patent No. 6,423,963 B1 issued to Wu.

Claims 1, 4-5, 8-10, and 13-15 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,483,616 B1 issued to Maddocks et al. in view of United States Patent No. 4,833,668 issued to Rowley et al.

Claims 16-19 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,504,630 issued to Czarnocha et al. in view of U.S. Patent No. 4,833,668 issued to Rowley et al.

Each of the various rejections is overcome by various amendments and arguments that are presented.

Any amendments to any claim for reasons other than as expressly recited herein as being for the purpose of distinguishing such claim from known prior art are not being made with an intent to change in any way the literal scope of such claims or the range of equivalents for such claims. They are being made simply to present language that is better in conformance with the form requirements of Title 35 of the United States Code or is simply clearer and easier to understand than the originally presented language. Any amendments to any claim expressly made in order to distinguish such claim from known prior art are being made only with an intent to change the literal scope of such claim in the most minimal way, i.e., to just avoid the prior art in a way that leaves the claim novel and not obvious in view of the cited prior art, and no equivalent of any subject matter remaining in the claim is intended to be surrendered.

Also, since a dependent claim inherently includes the recitations of the claim or chain of claims from which it depends, it is submitted that the scope and content of any dependent claims that have been herein rewritten in independent form is exactly the same as the scope and content of those claims prior to having been rewritten in independent

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form. That is, although by convention such rewritten claims are labeled herein as having been "amended," it is submitted that only the format, and not the content, of these claims has been changed. This is true whether a dependent claim has been rewritten to expressly include the limitations of those claims on which it formerly depended or whether an independent claim has been rewriting to include the limitations of claims that previously depended from it. Thus, by such rewriting no equivalent of any subject matter of the original dependent claim is intended to be surrendered. If the Examiner is of a different view, he is respectfully requested to so indicate.

Objection to Claim 16

Claim 16 is objected to because "a optical signal" in line 13 on page 4 should be --an optical signal--. Applicants have amended claim 16 as suggested by the Examiner and, as such, the Examiner's rejection is moot and should be withdrawn.

Rejection Under 35 U.S.C. 102(e)

Claims 1, 3, 6-7, 10, 12, and 20 are rejected under 35 U.S.C. §102(e) as being anticipated by United States Patent No. 6,423,963 B1 issued to Wu.

This ground of rejection is respectfully traversed.

Applicants' currently amended independent claims include the newly added features of a controller that provides an indication to a third network element that the supervisory signal is absent or the step of reducing counter-propagating optical signal power output from a third network element by a predetermined amount. These features were in claims 15 and 17, which are now canceled. The Office Action did not reject these features using Wu. Thus, as correctly stated in the Office Action, Wu does not disclose these features.

Since all of the rejected dependent claims that depend from the current amended independent claims include all the limitations of the respective independent claim from which they ultimately depend, each such dependent claim is also allowable over Wu. Therefore, claims 1, 3, 6-7, 10, 12, and 20 are allowable over Wu under 35 U.S.C. §102.

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Rejections Under 35 U.S.C. 103(a)

Claims 1, 4-5, 8-10, and 13-15 are rejected under 35 U.S.C. §103(a) as being unpatentable over United States Patent No. 6,483,616 B1 issued to Maddocks et al. in view of United States Patent No. 4,833,668 issued to Rowley et al.

This ground of rejection is respectfully traversed.

Independent claims 1 and 10 include the added step of responsive to the loss of the optical data signal, reducing counter-propagating optical signal power output from a third network element by a predetermined amount. The support for the newly added feature is found on page 8, lines 19-27 of the specification. Maddocks et al. does not teach or suggest that limitation. The Office Action states that Maddocks et al. discloses that limitation in column 3, lines 14-16. Applicants respectfully disagree. That section discloses that during the repair period, the amplifiers of Maddocks are inhibited but the supervisory channel continues to be transmitted at its low level. Maddock et al. does not teach or suggest the step of reducing counter-propagating optical power output of a third network element as claimed.

The Office Action does not supply Rowley et al. to show this feature. Applicants agree that Rowley et al. does not teach or suggest that feature.

Thus, Maddocks et al. and Rowley et al., singly or in combination, do not teach or suggest this feature. As such, applicants submit that independent claims 1 and 10 fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder.

Moreover, as stated in the previous response, independent claims 1 and 10 include the limitation of reducing the power level of an optical signal propagating in an optical fiber path in response to the absence of a counter-propagating supervisory signal in the optical fiber path.

Maddocks et al. explicitly teaches that in a bi-directional single fiber system, an identification signal has to be included. Maddocks et al. discloses, in column 3, lines 43-58, that in a bi-directional single optical fiber optical communication system, the system of Maddocks et al. would have to be modified to responding to a supervisory signal containing a unique identifier. Thus, the combination of Maddocks et al. and Rowley et al. would require the sending of an identification signal in the bi-directional fiber system. Therefore, Maddocks et al. in view of Rowley does not teach or suggest responding to

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absence of signal in a bi-directional single fiber system as claimed. As such, Applicants submit that independent claims 1, and 10 fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder.

Furthermore, claim 15 has been canceled. Claims 4-5, 8-9, and 13-14 depend, either directly or indirectly, from independent claims 1 and 10 and recite additional features thereof. As such, and at least for the same reasons set forth above with respect to applicants' independent claims 1 and 10, applicants submit that these claims are also non-obvious and allowable under 35 U.S.C. §103. Therefore, Applicants respectfully request that the rejection be withdrawn.

Claims 16-19 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,504,630 issued to Czarnocha et al. in view of U.S. Patent No. 4,833,668 issued to Rowley et al.

This ground of rejection is respectfully traversed.

Independent claim 16 recites the feature that the controller provides an indication to a downstream network element that the supervisory signal is absent. As stated on page 8, lines 9-11 of the present specification, the downstream network element can notify additional downstream network element of the loss of the optical data signal. On the other hand, as stated in column 5, lines 34-46, Czarnocha et al. uses a controller and supervisory unit of the downstream element to shut off the amplifier to emulate a fiber cut. This method uses the lack of a signal to notify the upstream element. Czarnocha et al. does not teach or suggest notifying a network element further downstream of the situation.

Rowley also does not teach or suggest providing an indication to a downstream network element.

Thus, Czarnocha et al. and Rowley et al., singly or in combination, do not teach or suggest a controller, in response to the absence of the counter-propagating supervisory signal, providing an indication to a downstream network element that the supervisory signal is absent.

As such, Applicants submit that independent claim 16 fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

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Furthermore, claims 17-19 depend, either directly or indirectly, from independent claim 16 and recite additional features thereof. As such, and at least for the same reasons set forth above with respect to Applicants' independent claim 16, Applicants submit that these claims are also non-obvious and allowable under 35 U.S.C. §103. Therefore, Applicants respectfully request that the rejection be withdrawn.

Conclusion

It is respectfully submitted that the Office Action's rejections have been overcome and that this application is now in condition for allowance. Reconsideration and allowance are, therefore, respectfully solicited.

If, however, the Examiner still believes that there are unresolved issues, the Examiner is invited to call Eamon Wall at (732) 530-9404 so that arrangements may be made to discuss and resolve any such issues.

Respectfully,

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